

Appl. No. 09/923,497  
Resp. dated Mar. 18, 2004  
Resp. to Office action of Dec. 24, 2003



#### **REMARKS**

The present application includes 21 claims. Claims 1-21 are now pending. Claims 1-21 are rejected.

#### **Claim Rejections under 35 U.S.C. § 112**

Claims 1-17 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Examiner states that applicant “uses the term ‘circuitry’ in his specification to describe components of his invention at the functional, black box level, giving no specifics into details as how the circuitry operates to perform the particular function.” (Page 2.)

Applicant respectfully submits, contrary to Examiner’s inference, all subject matter in the claims is described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention. More specifically, the specification discloses a processor. (Pages 6-7 and 11.) Applicant asserts that the claims disclose a ‘circuitry’ that performs functions, which can be achieved using a processor, for example, determining the conditions of the operating environment may be made by a processor. (Page 11.)

#### **Claim Rejections under 35 U.S.C. § 102(b)**

Claims 7, 9-13, 16, 17 and 21 were rejected under 35 U.S.C. 102(b) as being anticipated by Mandell (U.S. No. 5,955,917).

With regard to the anticipation rejections, MPEP 2131 states that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP 2131 also states that “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Regarding independent claim 7 and its dependent claims (i.e., claims 8-17), claim 7 recites “[a] communication system comprising a communication node having circuitry adapted to determine an operating environment of the communication node; and a management

information node adapted to control the communication node based on the operating environment and a plurality of stored PRBS generator definitions.”

It is respectfully submitted that the cited prior art, Mandell, does not teach the claimed invention of claim 7. More specifically, Mandell does not teach a communication node having circuitry adapted to determine an operating environment of the communication node; and a management information node adapted to control the communication node based on the operating environment and a plurality of stored PRBS generator definitions. Instead, Mandell discloses a selection circuit 22 that selects one of the four pseudorandom sequences; the selected sequence is then used in computations to determine an amplifier’s most desirable operating point. (Column 3, lines 51-67, and column 4, lines 1-18.)

Regarding independent claim 21, that claim recites “[a] method of communication comprising determining a number of carriers to be used by a communication node; comparing the number of carriers determined to a threshold; and selecting a first PRBS generator if the number of carriers determined is less than the threshold, and a second PRBS generator if the number of carriers determined is greater than the threshold.”

It is respectfully submitted that the cited prior art, Mandell, does not teach the claimed invention of claim 21. More specifically, Mandell does not teach a method comprising determining the *number* of carriers, comparing the *number* to a threshold, and selecting a PRBS generator based on the result of the comparison. Instead, Mandell teaches adding the pseudorandom sequences together, amplifying the sum, then adding the amplified sum to the multi-carrier signal, and measuring the power of the resulting signal, and based on the power of the signal set an amplifier at a desirable gain and phase. (Column 4, lines 31-65.)

#### **Claim Rejections under 35 U.S.C. § 103(a)**

Claims 1-6, 8, 14, 15 and 18-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Mandell in view of Chang (U.S. No. 5,034,906).

With regard to an obviousness rejection, MPEP 2142 states that in order for a *prima facie* case of obviousness to be established, three basic criteria must be met, one of which is that the reference or combination of references must teach or suggest all the claim limitations. Further, MPEP 2143.01 states that “the mere fact that references can be combined or modified does not

render the resultant combination obvious unless the prior art suggests the desirability of the combination”, and that “although a prior art device ‘may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so’” (citing *In re Mills*, 916 F. 2d 680, 16 USPQ 2d 1430 (Fed Cir. 1990)). Moreover, MPEP 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion . . . ,” citing *Al-Site Corp. v. VSI Int’l Inc.*, 174 F. 3d 1308, 50 USPQ 2d. 1161 (Fed Cir. 1999).

Regarding independent claim 1 and its dependent claims (i.e., claims 2-6), claim 1 recites “[a] modem comprising memory adapted to store a plurality of PRBS generator definitions; and circuitry adapted to determine an operating environment of the modem, and to select one of the plurality of PRBS generator definitions based on the operating environment.”

It is respectfully submitted that the cited prior art, Mandell, does not teach the claimed invention of claim 1. More specifically, Mandell does not teach a circuitry adapted to determine an operating environment of a modem, and to select one of a plurality of PRBS generator definitions based on the operating environment. Instead, Mandell teaches a selection circuit that selects one of the four pseudorandom sequences that is used in computations to determine an amplifier’s most desirable operating point, hence using a pseudorandom sequence to determine an operating environment and not vice versa. (Column 3, lines 51-67 and column 4, lines 1-18.)

Similarly, regarding independent claim 18 and its dependent claims (i.e., claims 19-20), claim 18 recites “[a] method of communication comprising determining an operating environment of a communication node; and selecting, based on the measured environment, a PRBS generator from a plurality of stored PRBS generators.”

It is respectfully submitted that the cited prior art, Mandell, does not teach the claimed invention of claim 18. More specifically, Mandell does not teach a method that comprises determining an operating environment of a modem, and selecting one of a plurality of PRBS generator definitions based on the operating environment. Instead, Mandell teaches a selection circuit that selects one of the four pseudorandom sequences that is used in computations to determine an amplifier’s most desirable operating point, hence using a pseudorandom sequence to determine an operating environment and not vice versa. (Column 3, lines 51-67, and column 4, lines 1-18.)

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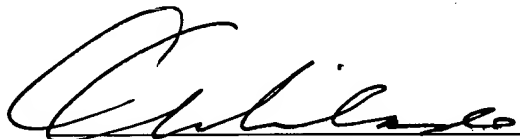
Based on at least the foregoing, applicant believes that claims 1-21 are in condition for allowance. If the Examiner disagrees or has any questions regarding this submission, applicant invites the Examiner to telephone the undersigned at (312) 775-8000.

A Notice of Allowability is courteously solicited.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

Dated: March 18, 2004

A handwritten signature in black ink, appearing to read 'C. Winslade', written over a horizontal line.

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